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A NEW FOSSIL CROCODILIAN FROM MONGOLIA[1]

BY CHARLES C. MOOK[2]

In the field season of 1930 the Central Asiatic Expedition of The American Museum of Natural History collected some crocodilian remains from the Irdin Manha Beds of Upper Eocene age at a locality seven miles west of Camp Margetts, Mongolia. These remains consisted of portions of at least two individuals. A portion of the skull including parts of the frontal, prefrontal, lachrimal, nasal, and maxillary bones, indicates an individual of fairly small size. An interorbital plate, consisting of parts of the frontal and nasal bones, indicates a larger individual. A pair of lower jaws, with the two rami separated, and somewhat broken and crushed, indicate a fairly large individual corresponding in size with that represented by the interorbital plate. These remains exhibit distinctive characters and are accordingly referred to a new genus and species of crocodilians, which may be designated *Asiatosuchus grangeri* in allusion to its occurrence in central Asia and in honor of Dr. Walter Granger, of the Asiatic Expedition.

ASIATOSUCHUS, NEW GENUS

TYPE.—*Asiatosuchus grangeri.*

GENERIC CHARACTERS.—Similar to those of *Crocodilus*, but with at least seventeen teeth in each ramus of the lower jaw; splenial bones do not reach forward to the symphysis.

Asiatosuchus grangeri, new species

TYPE.—Lower jaws, Amer. Mus. No. 6606.

PARATYPES.—Portion of snout, Amer. Mus. No. 6607; and interorbital plate, Amer. Mus. No. 6608.

TYPE LOCALITY AND LEVEL.—Twenty-five miles southwest of Iren Dabasu, Inner Mongolia; Irdin Manha Formation, Upper Eocene, 1930.

SPECIFIC CHARACTERS.—Symphysis extending back to level of the sixth mandibular teeth, the two rami of the mandible diverging at a moderately wide angle, dental row shorter than postdental portion of jaw, teeth stout and faintly striated, interfenestral plate flat, sutures of nasals with lachrimals considerably shorter than sutures with prefrontals.

DETAILED DESCRIPTION OF TYPE MATERIAL.—The lateral borders of the nasals are parallel for a considerable distance. The sutures of the nasals with the lachrimals are shorter than their sutures with the prefrontals. The interorbital plate is of moderate breadth and is flat. The snout exhibits a slight constriction at the level of what are apparently the sixth maxillary teeth.

The two rami of the mandible diverge at a fairly broad angle. The symphysis is moderately broad. Its exact breadth cannot be determined because of crushing, especially of the left ramus. The symphysis extends back to the level of what are apparently the sixth mandibular teeth.

The tips of both rami are missing with the alveoli of the first mandibular teeth. The first alveoli preserved are those of the second mandibular teeth. The numbers indicating teeth in this description refer to the morphological number of the teeth in the jaw and not to the preserved teeth or alveoli in the specimen. The second and third alveoli are of moderate size and are slightly separated from each other. The fourth tooth is preserved in the left ramus only. It is stout and faintly striated. The corresponding alveolus in the right ramus is the largest in the jaw. The fifth and sixth alveoli are slightly smaller than the second and third and are close together in position. Following the sixth are seven obscure alveoli of moderate size (seventh to thirteenth, inclusive) whose external borders are indefinite and whose internal borders are missing. The alveoli of the right eighth and ninth teeth are confluent with each other. The crown of the fourteenth tooth is present, now imbedded in plaster. It is elongate fore and aft, low vertically, with broadly rounded anterior and posterior surfaces. There is a prominent ridge on the anterior edge and another on the posterior edge. There are faint, irregular, rugose striations on various parts of the crown. The length of the tooth antero-posteriorly approximately equals the height of the

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[2] Contributions to the Osteology, Affinities, and Distribution of the Crocodilia No. 31.

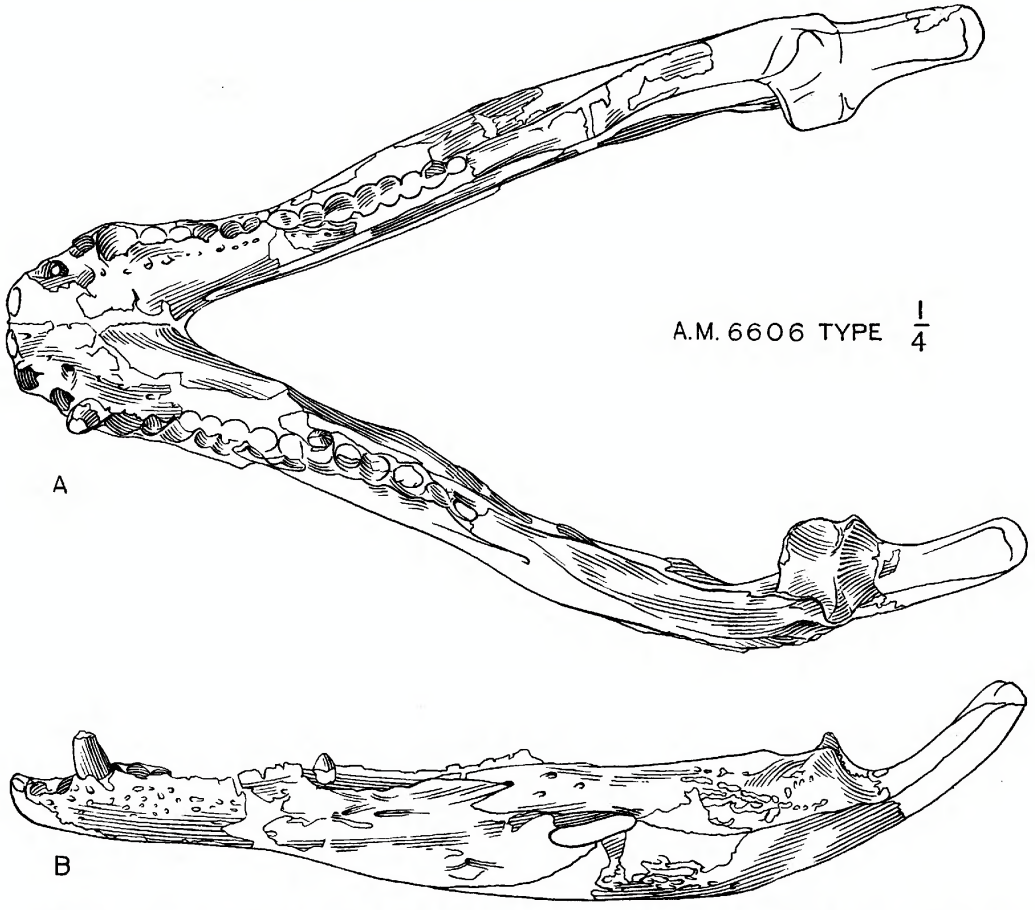

Fig. 1. *Asiatosuchus grangeri*, n. sp. Type, lower jaws, Amer. Mus. No. 6606, one-fourth natural size, A, superior view; B, lateral view, right side.

crown. The transverse diameter at the base is about half the height.

Posterior to this tooth are four or possibly five alveoli. This makes the total number of teeth in each ramus eighteen or nineteen. The length of the tooth row was undoubtedly less than the length of the jaw from the last tooth to the tip of the articular process. The actual distance from the last alveolus to the posterior edge of the glenoid surface is slightly less than the length of the tooth row.

The anterior end of each splenial almost reaches the symphysis but does not actually do so.

There is a very slight degree of festooning on the borders of the lower jaws.

Measurements

Type, Amer. Mus. No. 6606

Left ramus of mandible	
Length, as preserved	476 mm.
Length, anterior end as preserved to border of last alveolus	245
Length, tooth row of left ramus, estimated	257
Length, posterior border of last alveolus to posterior border of glenoid surface	192
Length, symphysis, estimated	90
Distance from anterior end of splenial to symphysis	10
Length, glenoid surface, antero-posterior	31
Breadth, glenoid surface transverse	56
Breadth of symphysis, estimated	124
Antero-posterio diameter of 4th tooth	16
Transverse diameter of 4th tooth.	14
Antero-posterior diameter of 14th tooth	13
Transverse diameter of 14th tooth.	13
Height diameter of 14th tooth	6

Paratype, Amer. Mus. No. 6607

Portion of snout

Length of specimen as preserved..	84 mm.
Maximum breadth.....	71
Breadth across 5th maxillary teeth.....	64
Height.....	24

Paratype, Amer. Mus. No. 6608

Frontal and prefrontals

Length of specimen as preserved..	73 mm.
Breadth across posterior end.....	40
Breadth across interorbital plate..	23

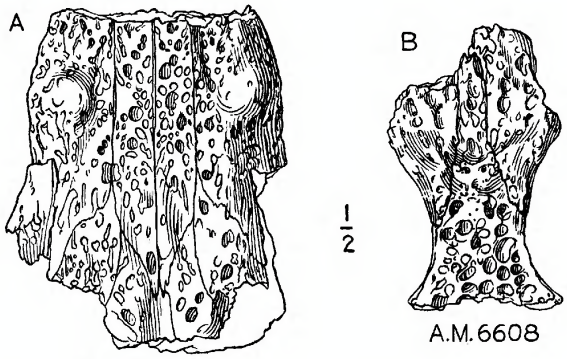

Fig. 2. *Asiatosuchus grangeri*, n. sp. Paratypes, one-half natural size. A, portion of snout, Amer. Mus. No. 6607, superior view; B, portions of frontal and prefrontal bones of another individual, Amer. Mus. No. 6608, superior view.